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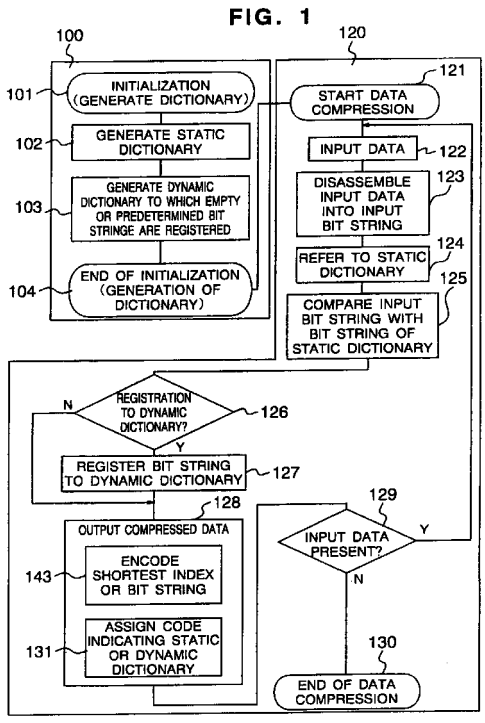
(54) Method of and apparatus for compressing and decompressing data and data processing apparatus and network system using the same

(57) In a data compression method using dictionaries, there are adopted a dynamic dictionary (231) and a static dictionary (241) to prevent the deterioration in the data compression ratio in the leading portion of the input data which cannot be efficiently compressed using the dynamic dictionary. Moreover, the configuration removes the disadvantage of the deterioration in the data compression ratio because character strings having a low appearance frequency occupy a large portion of the dictionary. Data to be compressed (201) is inputted via an input unit (221) to be decomposed into input bit strings (202). Using the input bit string 202 as a retrieval key, a bit string retrieval is conducted through the static dictionary (241) by a decision unit (243) and a reference unit (244). According to a result from comparison between the input bit string (202) and a bit string of the static dictionary (241) and a result from the retrieval by a retrieving unit (233) through the dynamic dictionary (231), whether or not the input bit string (202) is to be registered to the dynamic dictionary (231) is determined. For registration of the input bit string (202), an index is added thereto by a register unit (234) before the registration. The input bit string (202) or an index matching the string (202) is outputted as compressed data (205).

FIG. 1



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EUROPEAN SEARCH REPORT

Application Number
EP 97 10 1123

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
A	PATENT ABSTRACTS OF JAPAN vol. 018, no. 500 (P-1802), 19 September 1994 & JP 06 168096 A (FUJITSU LTD), 14 June 1994 * abstract *	1-4, 16-18, 20,23, 25,28, 30, 32-34, 36,41	H03M7/30
A	"COMPETITIVE PARALLEL PROCESSING FOR COMPRESSION OF DATA" NTIS TECH NOTES,1 May 1990, page 379 XP000137349 * the whole document *		
A	US 4 876 541 A (STORER JAMES A) 24 October 1989 * column 8, line 30 - line 63 * * column 10, line 32 - line 46 *		
A	US 4 881 075 A (WENG LIH-JYH) 14 November 1989 * column 5, line 20 - line 38; figure 9 *		TECHNICAL FIELDS SEARCHED (Int.Cl.6) H03M

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	26 January 1999	Augarde, E

CATEGORY OF CITED DOCUMENTS

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26-01-1999

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 4876541 A	24-10-1989	NONE	
US 4881075 A	14-11-1989	NONE	

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